

ABSTRACT OF THE DISCLOSURE

A method of processing a semiconductor workpiece, wherein sonic agitation is applied to the workpiece during a Marangoni drying or surface tension gradient drying step. Sonic agitation is applied to the workpiece as it is withdrawn from an aqueous liquid in a process vessel, or as the aqueous liquid is drained from the process vessel. As a result, the cleaning and drying steps are performed simultaneously as a single comprehensive process, which enhances workpiece cleaning while reducing processing times, chemical volumes, and overall costs.